California High-Speed Rail Authority
Board Financing Workshop

September 3, 2009

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Goldman Sachs

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Finance Team Members

- Infrastructure Management Group - Financial Plan Lead, Federal, P3 and Vendor Finance
- Goldman Sachs - State, Local and P3 Finance
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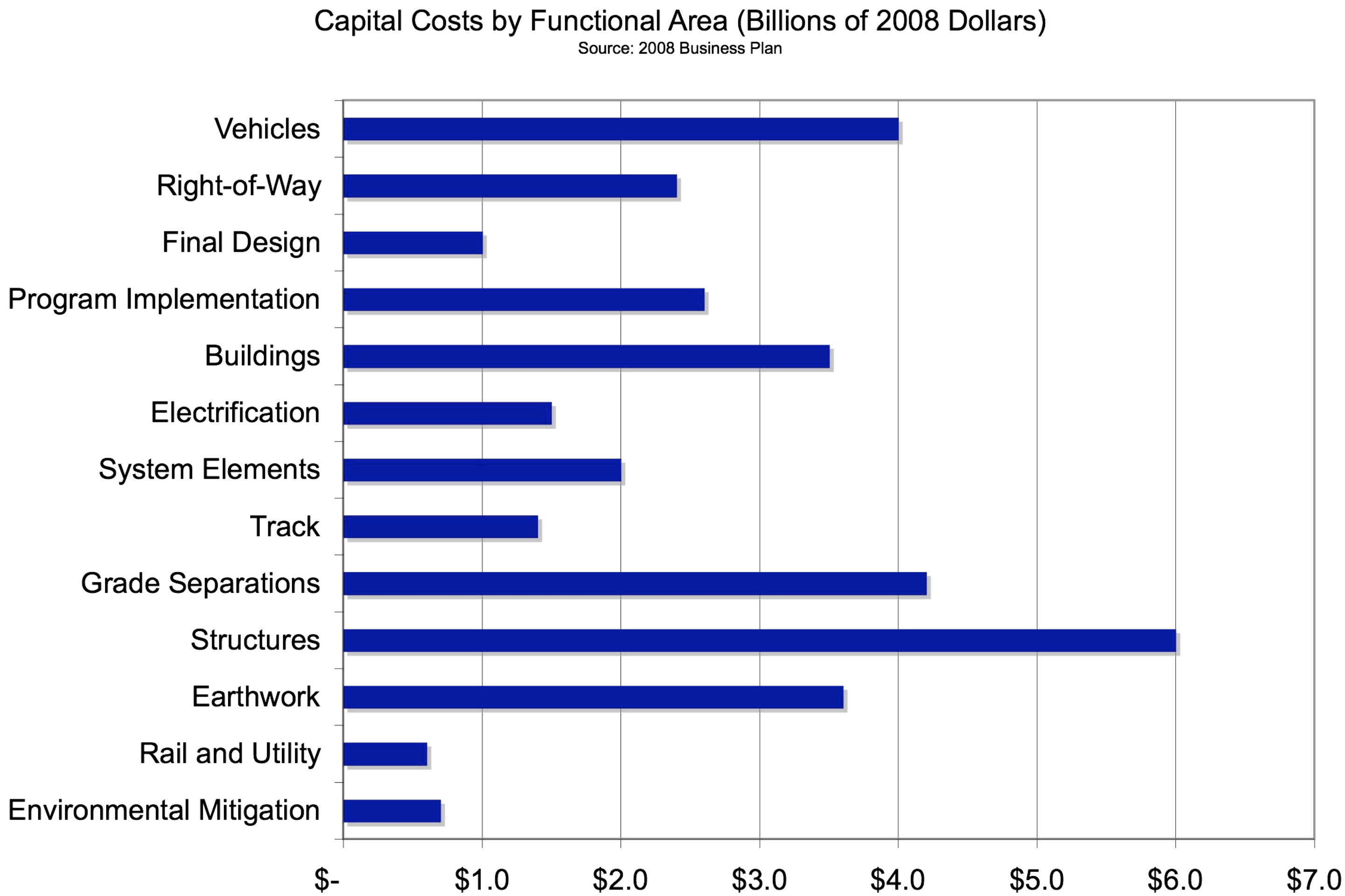
Introduction and Summary

- This workshop aims to discuss how the Authority will:
  - secure the remaining funding for the project, beyond the state's $9 B GO bonds
  - approach funding of the initial sections
  - incorporate finance issues within the procurement process
- The Authority's major funding focus should be on **federal grant funding, revenue guarantees** and maximizing tools like **vendor finance**
- While P3 financing may not play a role in the initial sections, the Authority can still leverage private capabilities and transfer key construction, technology, integration risks through **availability payments** or similar approaches
- Once the Authority agrees upon the parameters for a specific project and initiates an RFQ/RFP process, interested parties will begin to make their "best offer," including **competitive financing proposals**

Phase I Project Costs - By Functional Area

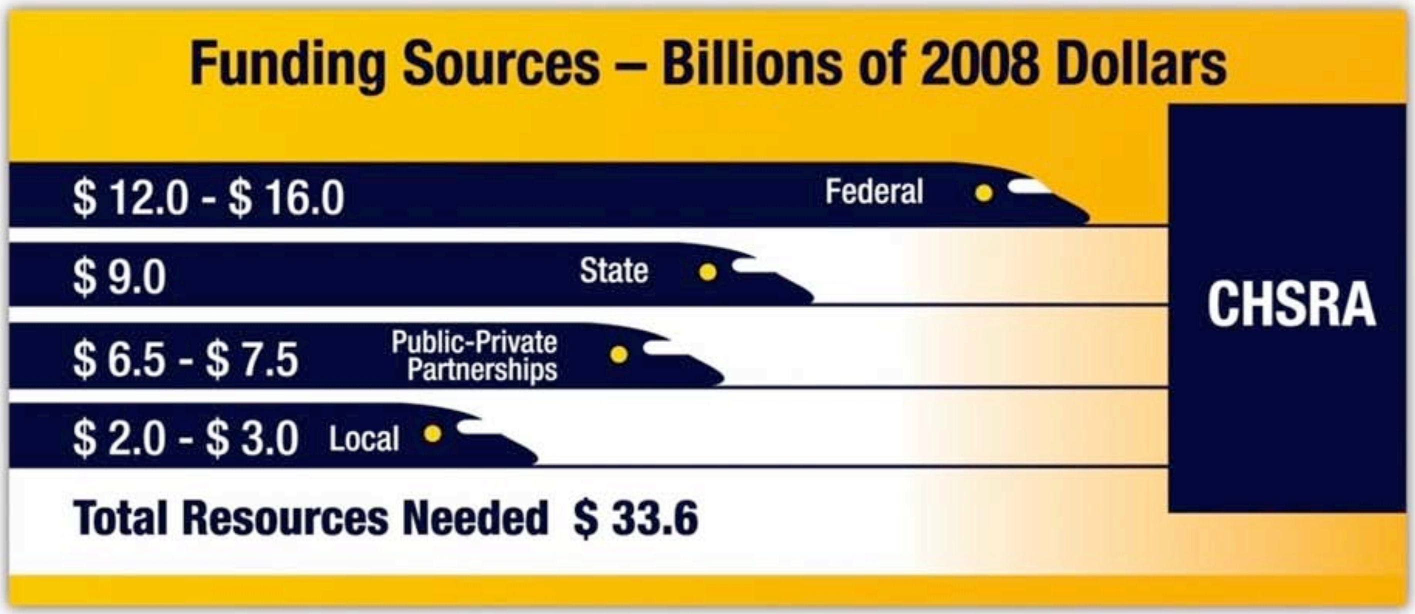


Phase I Project Costs - By Section

Capital Costs by Section (2008 Dollars in Billions)

Source: 2008 Business Plan

Funding Plan Overview From 2008 Business Plan



Financial Plan Strengths & Considerations

Source	Project Strengths	Key Considerations
State	• $9B demonstrates CA's commitment • Critical in leveraging other sources	• Funding cannot exceed 50% of each project • Confirm use for availability payments (AP) • May not be used for operating costs
Federal	• ARRA funds may provide early State match • National HSR support is growing	• Authority must secure long-term federal source • Must meet FRA regulatory requirements
Local	• HSR will create value capture opportunities • Agreements in place with several agencies • Local agencies may make in-kind contributions	• Opportunities will increase as project nears completion • Must determine O&M responsibility for early sections • Many jurisdictions lack funds to complete own projects

Financial Plan Strengths & Considerations

Source	Project Strengths	Key Considerations
P3s	• Private interest is strong • Private firms willing to accept variety of risks	• Private funding opportunities will increase as project nears completion • Private appetite for ridership risk is limited without revenue guarantee or until ridership proven
Vendor Finance	• Vendors jockeying to supply world's largest HSR project and first of many in the US • Variety of financing approaches are available	• Vendor finance may be limited by size of equipment contracts and willingness to accept repayment based on ridership risk

FINANCE AND PROJECT PHASING

Finance and Project Phasing

- The Authority must work to develop the technical program within financial constraints
  - Given the size, scope, and lengthy construction period, it is unlikely the Authority will have $33.6B in committed funding before proceeding
  - Authority must adopt a **staged** approach
- The financial plan team recommends that the Authority consider selection criteria when staging construction to maximize risk transfer and private involvement including:
  - Independent utility
  - Limited ridership risk
  - Section can cover operating costs on a standalone basis--unless it is covered by a third-party

Project Potential Funding Sources and Financing Mechanisms

Direct System Revenues

Farebox

Non-Farebox

- Advertising
- Air Rights
- Naming Rights
- Station Revenues
  - Concessions
  - Parking

Other Funding Sources

Traditional

- Local taxes
- State GO Bonds
- State Sales Tax
- Federal Grants:
  - ARRA & PRIIA

Innovative

- TOD/Joint Development
- Benefit Assessment Districts
- Tax Increment Finance
- Ridership Guarantee

Financing Mechanisms

Traditional

- Debt

Innovative Mechanisms

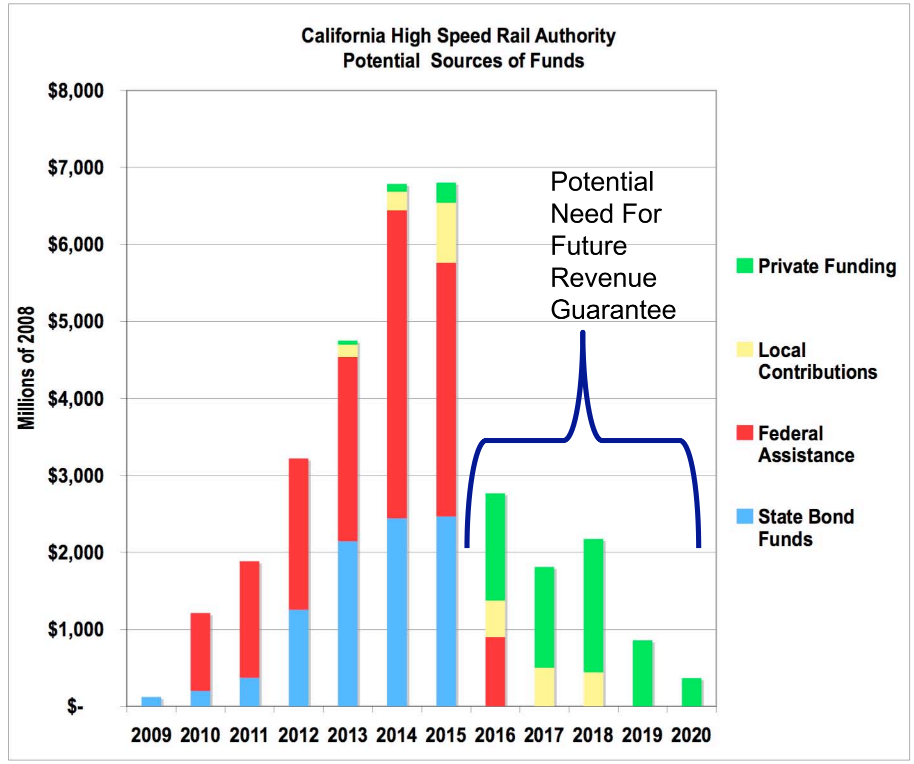
- SIB Loans
- Tax Credit Bonds
- RRIF & TIFIA
- Leases
- Vendor Financing
- P3 Mechanisms
  - Availability Payments
  - Private Activity Bonds
  - Private Equity

Potential for Non-Recourse Financing on Early Sections

- Potential for substantial **non-recourse financing is likely be limited** to the Anaheim-San Francisco section, based on forecast of operating surplus
  - Few sections generate enough operating surplus to justify private investment on a non-recourse basis
  - It is unlikely that a private partner will take ridership risk at this early juncture
  - Authority can still leverage private involvement through design-build and AP mechanisms
  - Several smaller sections are forecast to break even or generate a relatively small operating surplus, meeting the legislative requirement that no funds be used to subsidize operations

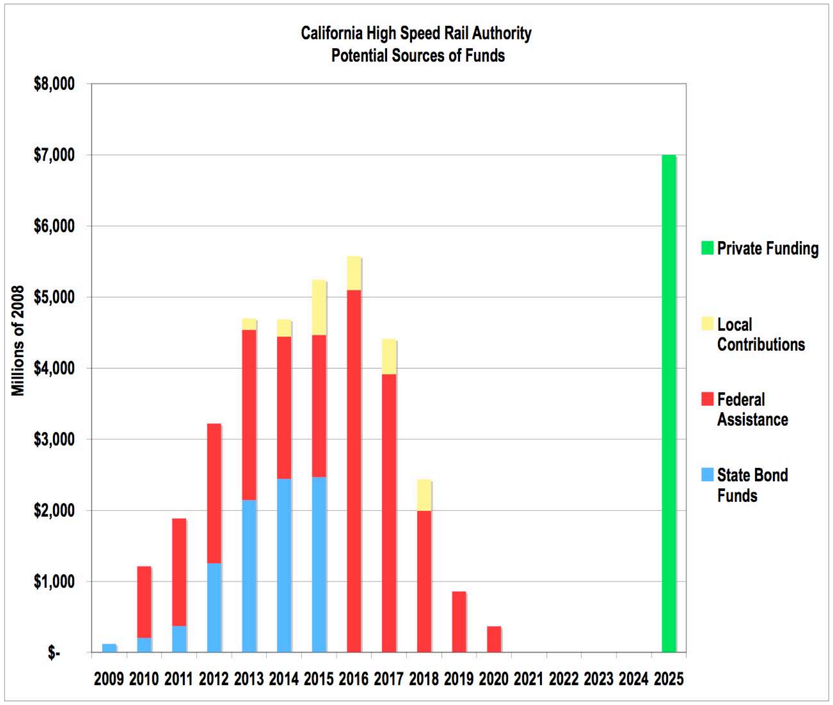
Project Phasing - Hypothetical Scenario A - Mid-Term Private Participation

- Scenario A -- Mid-Term Private Participation Backed by Revenue Guarantee
  - Authority builds “stimulus sections” with state, federal & local funds, with opportunities for private involvement through innovative contracting and some vendor finance
  - Once these sections are complete, Authority leverages projected $1.1B operating surplus to complete remaining sections
  - Due to uncertain demand, this will likely require a **revenue guarantee**



Project Phasing - Hypothetical Scenario B - Later Private Participation

- Scenario B -- Later Private Participation where the Authority:
  - builds "stimulus sections" with state, federal & local funds, with opportunities for private involvement through innovative contracting and some vendor finance
  - obtains public funding for the other sections
  - attracts private investment to **recoup** public investment awarding an operating concession after ridership has been proven



FEDERAL FUNDING

Federal Funding: Overview

- The Authority's 2008 business plan targets **$12B to $16B** in federal assistance for the Phase I project
- To achieve this, the Authority must:
  - Maximize short term federal funding from the American Recovery and Reinvestment Act (ARRA)
  - Continue to focus legislative efforts on securing a **long-term, dedicated funding source** for HSR investment nationwide

Federal Funding: ARRA & PRIIA

- American Recovery and Reinvestment Act (ARRA) or “stimulus” funds changed the landscape for federal high-speed passenger rail funding in the US
  - $8B for HSR, intercity passenger and congestion grants
  - Authority is seeking to use ARRA funds for early segments focusing on the October 2nd deadline
- Legislative and policy foundation for ARRA funding is based on the **Passenger Rail Investment and Improvement Act (PRIIA)** through three separate programs:
  - Capital Assistance for Intercity Passenger Rail Service (S.301)
  - Congestion Grants (S. 302)
  - HSR Corridor Program (S. 501)

Federal Funding: Legislative Updates

- Based on President's **FY2010** of $1B, the House and Senate have put forward FY2010 appropriations proposals for HSR:

President's Budget: $1B → House: $4B / Senate: $1.2B

  - These appropriations would be **in addition to current $8B ARRA funding**
- **Transportation authorization**: House plan includes **$50B for HSR** over 6 years
  - Funding source has yet to be identified for proposed authorization

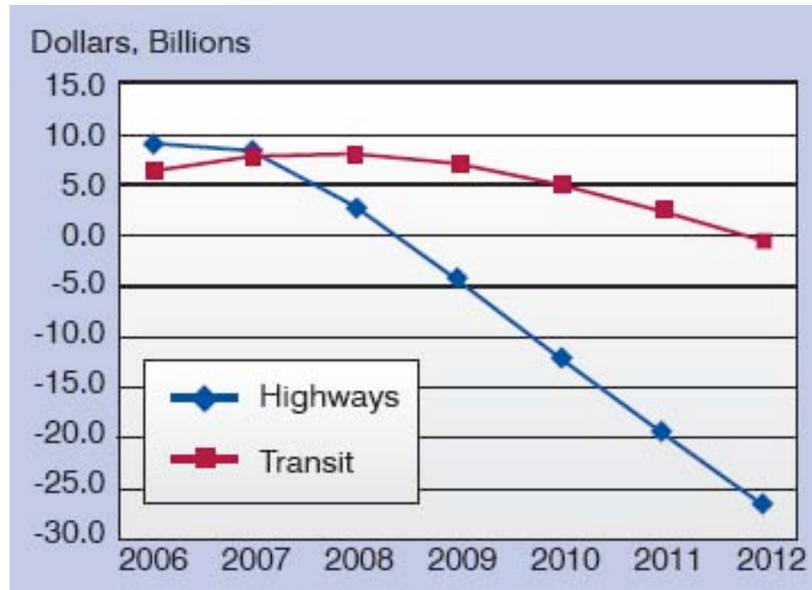
SAFETEA-LU
Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users

  - Includes proposal to create a NIB that could provide additional innovative finance techniques to better leverage federal dollars
  - Senate committees of jurisdiction have coalesced around **18-month extension** and have not put forward plans for authorization

Federal Funding: Future Programs

- Major transportation funding shortfall nationwide for all modes as highway trust fund needs to be addressed
- Future programs will be constructed in the context of a large budget deficit
- NIB mandate is still being drafted; however, one of its programs could include a federal **minimum revenue guarantee** or **contingent liability mechanism**

Projections of Highway and Transit Account Balances Through 2012



National Surface Transportation Policy and Revenue Study Commission: Transportation for Tomorrow

STATE FUNDING

State Funding

- Prop 1A provided $9B for planning and construction of HSR system
- Important to leveraging other funding sources and cemented public and political support for the project
- Uses of funds:
  - Not more than **10% ($900M)** of HSR bond proceeds be used for environmental studies, planning and preliminary activities
  - Not more than **2.5% ($225M)** of bond proceeds be used for administrative expenses
  - Priority given to corridors that are expected to require the least amount of bond funds as a percentage of total cost of construction
  - With the exception of **7.5% ($675M)** for planning and other preliminary costs that do not require matching, Authority must find a 50% match for state funds

LOCAL FUNDING

Local Support: Overview

- Local funding will provide additional support for station development and offer cost-sharing opportunities
- The 2008 Business Plan identified Project funding sources with approximately **$2B to $3B** targeted from local sources
- There are three main forms in which local support is likely:
  1. **Cost-sharing** opportunities with local agencies in places such as Anaheim and San Jose
  2. **Value capture** strategies such as benefit assessment districts to take advantage of TOD created by HSR
  3. **Sales tax funding** could elect to use existing sales tax funds to help fund HSR development

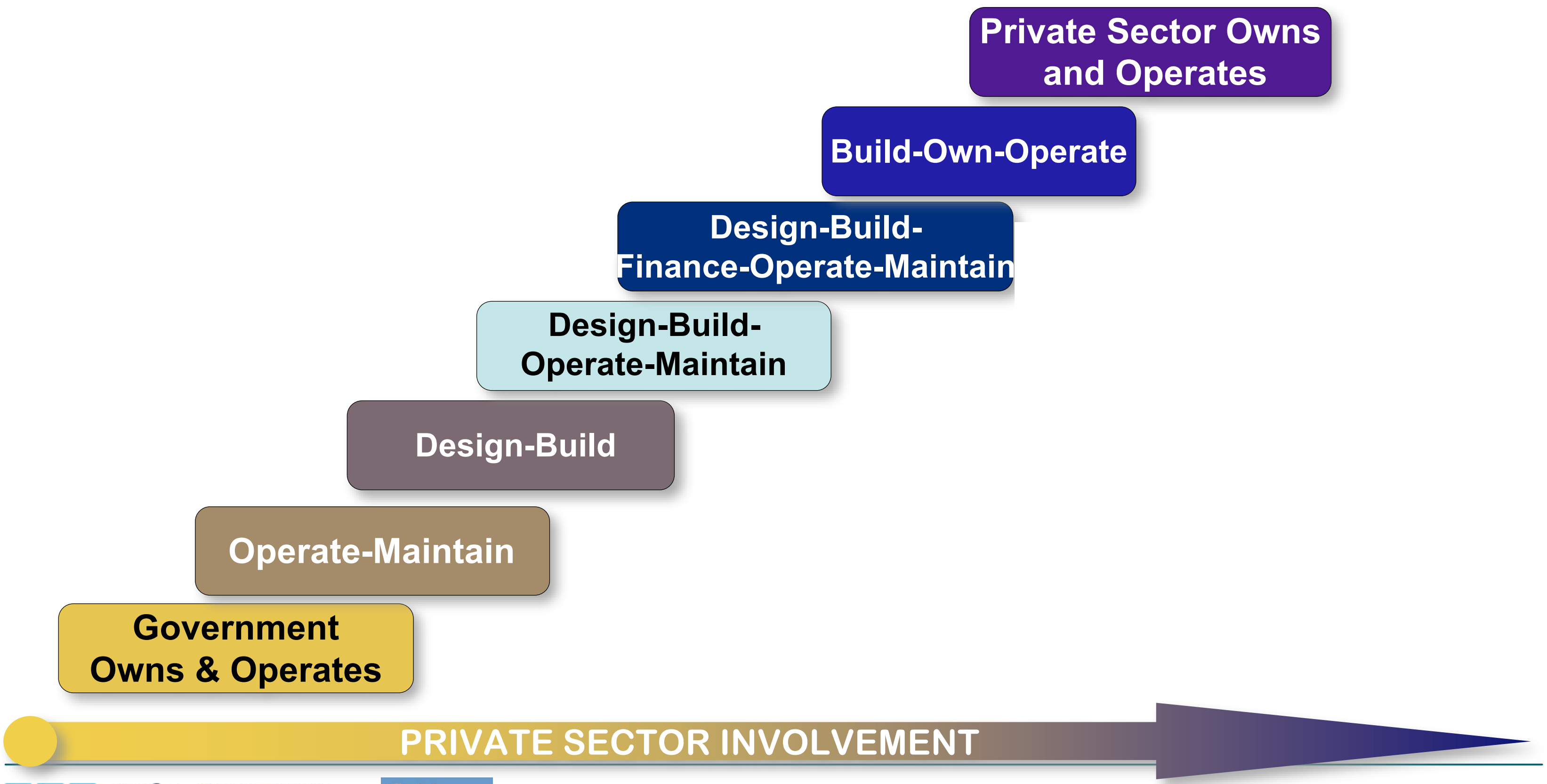
Local Support: Transit-Oriented Development (TOD) and Tax Increment Financing (TIF)

- Transit projects have increasingly utilized TOD to fund initial project costs
- With local support, tax increments generated by HSR could be leveraged to fund portions of the construction costs
- Denver's Union Station project provides a relevant example of TIF

PUBLIC-PRIVATE PARTNERSHIPS

Public-Private Partnerships (P3s): Overview

- A P3 is a contractual agreement between a government agency and a private entity that allows for greater private sector participation in the **delivery** and **financing** of public infrastructure projects



P3s: Potential P3 Funding Instruments

- The 2008 Business Plan for Phase I targets **$6.5B to $7.5B** from P3 funding instruments
- The repayment for debt service and dividends comes from the projected **$1.1B** annual operating surplus

$6.5 to $7.5B

Senior Debt	Bank loans, bonds (taxable and tax-exempt), Export Credit Agency (ECA) guarantees and loans, RRIF loans, vendor loans and lease debt
Subordinated Debt	Transportation Infrastructure Finance and Investment Act (TIFIA) loans, vendor installment payments and mezzanine loans
Equity	Private equity, vendor equity, vendor residual lease guarantees

P3s: Summary of Debt Terms

	Terms; Tenor or Maturity (Years)	Requirements
Senior Debt (bank and ECA loans, bonds including tax-exempt Private-Activity Bonds (PABs))	Market rates reflecting credit risks; banks (7-10), ECAs (12+), bonds (30)	Investment grade ratings (bonds); strong debt service cover ratios (DSCR) (both); PABs have drawdown challenges
Railroad Rehabilitation & Improvement Financing (RRIF) Loans	US Treasury rates; up to 35	Credit fee cost; senior lending only
Transportation Infrastructure Finance and Innovation Act (TIFIA) Subordinate Debt	Rates close to US Treasures; up to 40	Junior to investment-grade senior debt; exceed specific DSCRs; max. 1/3 project cost

P3s: Availability Payments

- Under an AP mechanism, private participants are paid rent-like payments over time, with penalties for failing to meet key project deadlines or agreed upon performance standards
- While the level of risk transfer is not as extensive a “full concession” model, APs have become increasingly an common mechanism that can be used to transfer a number of key project risks

P3s: Benefits of Availability Payments

Benefits
Reduces project risks borne by private sector and may increase competition
Transfers substantial O&M, financing, and construction risk to private sector
Payments only made if the facility is operating and in acceptable condition
Public sector retains ability to set fares
Receive facilities now; pay over time (albeit at a cost of higher payments)
Once maximum payments are set, public sector obligation is fixed
Considerations for HSR
Requires a long-term public funding source
Unclear if state bond funds can be involved in this structure
Precedent for using federal grants for this structure

P3: International Models

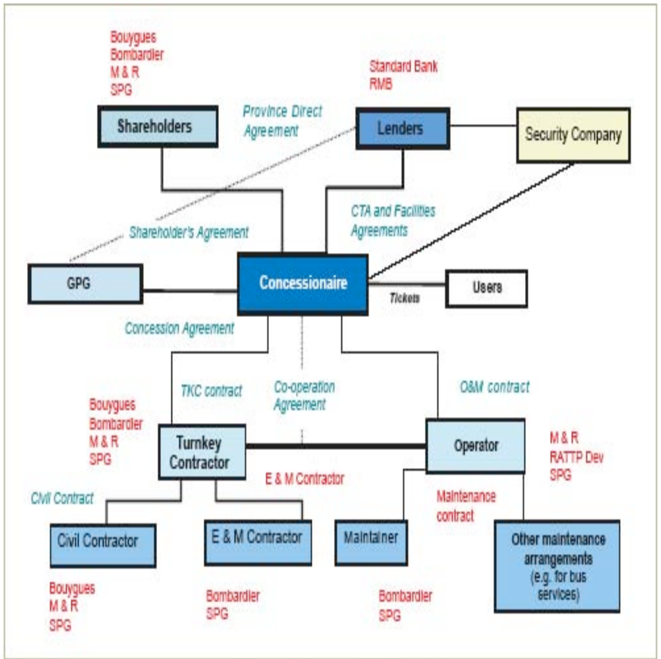
- Railways have been a major transport policy focus for many foreign governments
- Private sector involvement is almost always backed by a strong government sponsor
- Several international examples can serve as model transactions for California

P3: International Models

Project	Cost	Key Characteristics
Taiwan	US$18B	• 215 mile rail from Taipei to Zuoying (Kaosiung) • Concession granted to construct and operate the HSR for 35 years • At the end of concession, government will repurchase the HSR system • Taiwanese government sponsored the **'buy back'** guarantee (estimated at US$12B) to facilitate private sector lending
Dutch HSR	US$10B	• HSR link, approximately 60 miles long, will run from Amsterdam to the southern boarder with Belgium • Largest HSR project in Europe to date and largest P3 ever awarded by the Dutch Government • Infraspeed awarded a $1.8B DBFM contract for 25 years; Fluor leads project management and acts a consortium leader; Siemens providing power, safety, communication & support • Payment to Infraspeed is an AP structure with deductions for non-availability, unsatisfactory asset condition and possession

P3: International Models

Project	Gautrain, South Africa
Cost	US$3.3B
Key Characteristics	• Links Tshwane (Pretoria), Johannesburg Airport, and Sandton • The Gauteng Provincial Government (GPG) will provide approximately **80% of equity** and provide **minimum revenue guarantees** • Private sector funding provided as equity through shareholders' funds • Equity from consortium is comprised of two parts base equity requirement of $71M and standby equity of $21.5M totaling $93M



Gautrain Project Structure

P3s: Highlights from Recent Transactions in North America

Port of Miami Tunnel	• The Miami Access Tunnel consortium (comprised of Meridiam Infrastructure and Bouygues) and the Florida Department of Transportation (FDOT) agreed to revive the $1B project and reached commercial close on June 2, 2009
Port of Oakland Outer Harbor Terminal	• The Port of Oakland has awarded Highstar Capital's Ports America and Terminal Investment Limited a 50-year concession of berths 20-24 in the Outer Harbor beginning in 2010 after expiration of the current tenant's operating lease
I-595 Managed Toll Lanes	• ACS Dragados has reached financial close on the ~$1.6B I-595 Managed Toll Lanes project; with 12 banks committing approximately $800M; it also secured $678M in TIFIA loans, will commit approximately $210M in equity

All information contained above, including any estimate, is derived from publicly available news and market sources, including P3 Americas & Bloomberg LP

[1] Twenty foot equivalent unit; standard metric to measure port activity.

VENDOR FINANCE

Vendor Finance: Overview

- Vendor financing (VF) provides **lower cost** financing for equipment, taking various forms including:
  - direct financing at attractive terms
  - installment payments
  - credit backstops
  - lease financing and residual value guarantees
  - vendor equity
- VF is likely to cover a maximum of **$7.5B** (including vehicles, system elements and electrification), yet coverage is expected to be lower due to:
  - Repayment sources--repayment of VF from other than an AP structure, such as net operating surplus without ridership guarantees, will be limited
  - Export credit agency (ECA) conditions
  - PRIIA's *Buy America* provisions require **100% U.S. sourcing,** unless waivers are obtained

Vendors: RFEI Participants

Construction	Vendors
Acciona*, Balfour Beatty*, Bechtel, Bouygues*, CH2M Hill*, Flatiron*, Fluor*, Hill Int'l*, Halcrow, Inabensa*, Kiewit*, Parsons, Vinci*	Alstom*, Bombardier*, Italferr*, Railequip Inc, RTT, Siemens*, Sumitomo*, Talgo*,TangShan Railway Vehicle Co.
Operations	**Finance/ Other**
ACID*, Angel Trains*, SNCF*, Stagecoach*, Veolia*	Booz Allen Hamilton, Bovis Lend-Lease, Carlyle*, Goldman Sachs*, Macquarie, Dexia Credit Local, HSH Nordbank*, Meridiam*, Morgan Stanley, Superlative Group, Table Rock Capital, Third Rock Capital, Zachary-Hastings

*Participated in initial 2008 RFEI

Vendor Finance: Export Credit Agency Support

- Most developed countries have ECAs to provide export credit insurance, guarantees and direct loans to domestic exporters
  - While world trade rules prescribe “market” terms, ECA terms are currently better than the current commercial bank market
  - Beyond political risk, some ECAs take on project-based risk (i.e. ridership)
- ECAs finance no more than 85% of exported equipment, with exceptions such as funding 30% additional “local costs” (i.e. rail cars and construction of a station)

Export Credit Agencies - Allowable Project Finance Terms	
Term	12 years (up to 14 years with 20 basis point premium)
Interest Rate	Set at a minimum of 5 year Treasuries plus 100 basis points (currently 3.58%)
Principal Grace Period	Up to 2 years

Vendor Finance: Leasing

- VF can include facilitating leasing that generates savings by leveraging tax efficiencies--if lessors with taxable income can be found and new laws allow it
- Some possible structures include the US **leveraged lease**
- Leasing has challenges, including:
  - Recent laws limit economic benefits if lessee is a tax-exempt entity
  - Transaction structures can be extremely complex
  - Whether rail cars and equipment will be interoperable with other systems

Acela/Amtrak Example

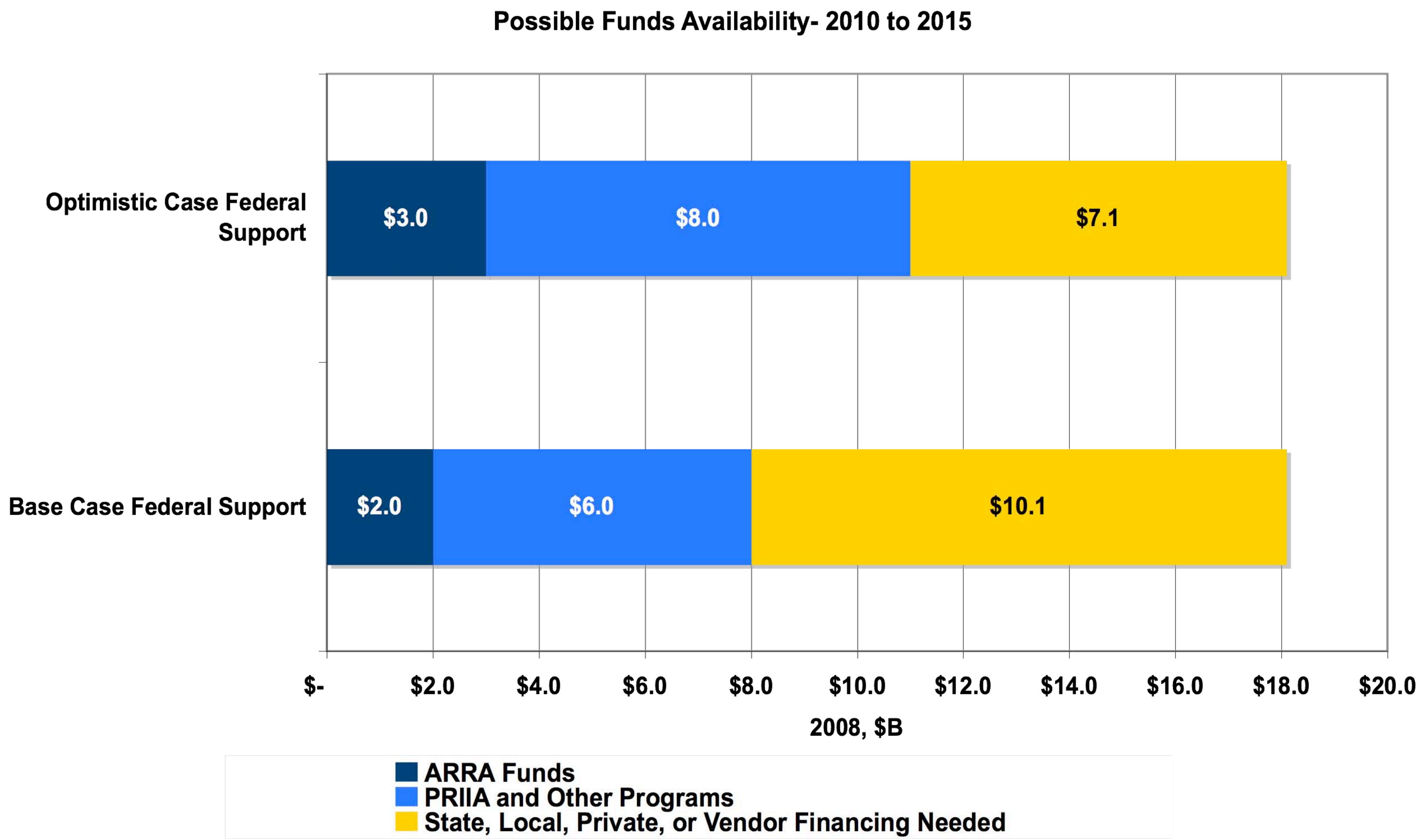
- In 2000, Amtrak accepted leveraged lease proposal from BNY Capital Funding (BNYCF) for funding Acela locomotives and train sets
  - Trains designed to run as fast as 150 miles per hour
  - Manufacturing consortium: Bombardier (75%) and Alstom (25%)
  - Lender: Export Development Corporation (EDC) of Canada
  - Lessor: BNYCF

SECTION FUNDING NEEDS

Section Funding Needs

- Earlier this year, the Board adopted San Francisco to San Jose, Merced to Bakersfield, and Los Angeles to Anaheim as "stimulus sections"
- According to the 2008 Business Plan, these sections will require **$12.5B** in capital costs, plus their share of program implementation costs and rolling stock needs
- While none of these sections are forecast to generate significant operating surplus to attract P3 financing, vendor financing may be available for rolling stock and core systems requirements
- Therefore, the Authority should target significant federal funds to pair with state bond monies and any vendor finance contributions in order to construct these sections

Possible Federal Funding Availability Based on 2009 Business Plan Drawdowns until 2015



FINANCE AND PROCUREMENT

Procurement Overview

- Procurement strategy needs to apply to both **initial and future project sections**
  - Takes into account state and federal grant funding
  - Incentivizes private partners to adopt a long-term project perspective through competitive pricing and financings
  - Technology needs may require that equipment supplier of initial section become entire system's supplier
- Extent of **need for HSR** trains in early sections affects procurement strategy
- Authority may benefit from private firms' expertise by qualifying equipment suppliers and operators through **early RFQ process**

Procurement Scenarios

Scenario A 1 Contract	Scenario B 2 Contracts	Scenario C 3 Contracts
• Equipment supply • Equipment maintenance • Operations • Civil infrastructure construction • Equity investment and finance	• Equipment supply • Maintenance • Operations • Equity investment and finance	• Equipment supply • Maintenance • Equity investment and finance
	• Civil infrastructure construction • Equity investment and finance	• Civil infrastructure construction • Equity investment and finance
		• Operations

Procurement Scenarios: Benefits & Considerations

Scenario A - 1 Contract

Benefits

- Achieves maximum integration of technology and business focus
- Completion, technology and operations risk can more easily transferred from Authority

Considerations

- Civil infrastructure contractors and equipment suppliers are concerned about taking on other's liabilities

Scenario B - 2 Contracts

Benefits

- Achieves critical integration between equipment and operations
- Overcomes equipment supplier/civil works tension

Considerations

- Authority needs to ensure clarity of responsibilities under each contract to avoid "finger-pointing"

Scenario C - 3 Contracts

Benefits

- Fosters focus on operations and allows for potential competition
- Overcomes equipment supplier/civil works tension

Considerations

- Need to ensure that operators' "voice" is heard in equipment design as well as construction
- May reduce vendor finance opportunities

Typical P3 Procurement Process Steps

PHASE	1 Procurement Preparation	2 RFQ	3 RFP Preparation	4 RFP Process
TASK	• Identify project technical & financial parameters • Draft RFQ • Solicit industry input	• Distribute RFQ • Receive qualification statements • Select qualified bidders	• Obtain draft EIS, other documents • Prepare RFP • Prepare concession agreement	• Issue RFP • Receive responses, select preferred bidder • Negotiate and award contract • Oversee financing process

CONCLUSION AND NEXT STEPS

Conclusion and Next Steps

Source	Recap	Next Steps
State	• $9B demonstrates commitment	• Continue to review legal considerations for the project to ensure compliance with state programs • Determine best use of state funds to leverage other sources
Federal	• ARRA funds may provide early State match • Long-term funding taking shape	• Continue legislative efforts to secure a significant portion of ARRA HSR funding for HSR, as well as a long term federal program for HSR • Seek partial ridership guarantee or contingent liability type mechanism in new transportation authorization • Focus on regulatory issues
Local	• HSR will create value capture opportunities	• Maximize local funding sources by promoting innovative funding sources

Conclusion and Next Steps

Source	Recap	Next Steps
P3s	• Private firms are willing to accept variety of risks; appetite for ridership risk may be limited. • P3s will not make up for a shortfall in public support	• Proceed with an investment grade ridership and revenue study • Private sector outreach through RFEI update • Initiate qualification process for participation on early sections
Vendor Finance	• Vendors competing to supply world's largest HSR project and new US market • Project of this magnitude may receive export credit support • Variety of financing approaches are available	• Continue private sector outreach to better understand opportunities • Challenge private sector to provide innovative funding and financing solutions to the CA project as US demonstration opportunity